REMARKS

Claims 1-16, 30-39, 45-48 and 62-65 are pending in the application. A number of the claims have been amended for the purposes of clarity and to correct typographical errors without reference to the present claim rejections. Claims 1-16, 30-39, 45-48 and 62-65 stand rejected as obvious over Parham et al. US 4,949,005 in view of DeCaro et al. 3,932,780 alone or in various combinations of secondary references.

Background

Parham et al. is directed to a method of heat treating coatings on elongated tungsten halogen lamps that are tubular, i.e. they do not have a bulbous chamber. Parham et al. are silent with regard to damage to the coatings near the end portions of the halogen lamps when exposed to the high temperatures (in excess of 1,500°C) required to hermetically seal the lamps. This silence may be explained because damage in an elongated lamp results in tolerable losses confined to small proportions of the lamp surface, see Fig. 1. Parham et al. does not consider or teach a method of preventing such damage.

DeCaro et al. is directed to a method of depositing an aluminum reflective coating on surfaces of an electric lamp. The electric lamps are depicted as large, bulbous incandescent lamps as was typically found in the home (see Fig. 1) or automobiles (see Fig. 3). The incandescent lamps screw or plug in at a single terminal end.

No motivation to combine references - Double ended bulbous lamp

As amended, independent claims 1, 11, 13, 30, 46, and 65 recite "a bulbous light emitting chamber intermediate tubular end portions". The rejection of these claims is based, in part, on a combination of Parham et al. and DeCaro et al. and asserts that the motivation for coating various shaped lamps is that it allows for producing lamp articles for various uses. The rejection incorrectly provides support for the motivation by citing to various uses disclosed by DeCaro et al., specifically, the automotive headlamp shown in Fig. 3 and the showcase lighting lamp shown in Fig. 4.

Applicant respectfully submits that the mere disclosure in DeCaro et al. of various bulbous shaped lamps does not provide motivation to modify the elongated lamp in Parham et al. into a bulbous shape.

Furthermore, any motivation that could be derived from the disclosure of bulbous shaped headlamps or showcase lighting lamps would be limited to the single ended lamps of DeCaro et al. In contrast, Applicant can not find any motivation in DeCaro et al. about a bulbous double ended lamp as recited in the claims as amended: "bulbous light emitting chamber intermediate tubular end portions". Accordingly, Applicant submits that there is no motivation for the combination and that the rejections based thereon is improper.

The rejection of independent Claim 64 is improper for the same failure of the combination of Parham et al. and DeCaro et al. Claim 64 is also directed to a double ended bulbous lamp, reciting, "hermetically sealing each tubular end portion of a double

ended lamp burner envelope having a substantially elliptical bulbous light emitting chamber". Applicant requests withdrawal of the rejection.

Not all claim limitations taught - Protecting the coated surface from heat of sealing

Independent Claims 1, 11, 30, 37, 39, 46, 64 and 65 require, in various terms recited below, protecting the coating from the heat of the hermetic sealing process. Towards that end, the claims recite:

Claim 1: "sealing each of the tubular end portions with a respective heat source . . . protecting the coated surface . . . from the heat source"

Claim 11: "protecting the coated surfaces from at least one heat source . . . sealing the burner envelope with a respective one of said heat sources"

Claim 30: "protecting the deposited layer of material from at least one heat source . . . sealing . . . by heating . . . with said heat sources"

Claim 37: "sealing is performed by exposing . . . to temperatures greater than the certain temperature, the step of preventing the exposure of the coated portions"

Claim 39: "which shields the first coating from exposure to temperatures greater than the certain temperature during the sealing process"

Claim 46: "protecting said coated surface from at least one heat source . . . hermetically sealing . . . using . . . at least one respective heat source"

Claim 64: "hermetically sealing . . . the step of shielding portions of the IR reflective coating"

Claim 65: "pinch sealing . . . while shielding . . . to thereby prevent exposure of the coating thereon from temperatures that would damage the coating."

The rejection uses Audesse et al. US 3,466,489 to show typical pinch sealing temperatures in the range of about 1500 to 2000 C. However, of all the references cited, only Goebel et al. 5,276,763 is related to a protective function. However, Goebel et al. has nothing to do with protecting during pinch sealing, nor even to the temperature range involved in pinch sealing.

Goebel et al. is directed to infrared radiators with a protected reflective coating of metal (Col 2, ll. 9-10). The reflected coating attempts to solve the problem of gradual thermal degradation (Col. 1, l. 29) and improving thermal stability against "destruction by evaporation". (Col. 1, ll. 35-37).

In contrast, the present application is directed to hermetic sealing, which is a one time event, at temperatures as high as 1500 to 2000 C. None of the references, alone or in combination, teach protecting a coating from the heat of hermetic sealing. Accordingly, not all claim limitations have been taught and the rejections of 1, 11, 30, 37, 39, 46, 64 and 65 are improper. Applicant requests prompt withdrawal of the same and notification of the allowance of the claims.

Not all claim limitations taught – Repositioning a filament for the lowest power to maintain the filament at a constant temperature.

Independent Claim 63 is directed to figuring out the most efficient position of a filament inside a lamp. In lamps having coatings such as in the present invention, the coating will reflect light imperfectly back towards the filament. Because every coating is different, every lamp has its own best position where the most reflected light will hit the

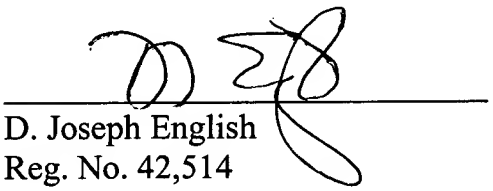
filament. The more reflected light hits the filament, the lower the amount of electrical power will be needed to keep the filament hot enough to provide suitable light. Because the present invention allows coating lamps before sealing them, the best position can be determined experimentally before the lamp has been assembled. Accordingly, Claim 63 recites, "repositioning the filament to a position requiring the lowest applied power to maintain the filament at a constant temperature".

The Examiner has relied upon Hollenbeck to teach aligning a filament in the rejection of Claim 63. Hollenbeck, however, is simply directed to the problem where a user has no line of sight to a filament orientation. To solve the problem, Hollenbeck measures the electric field around the bulb to "see" which way it's facing. The rejection merely states that because power can be derived from measuring an electric field, Hollenbeck renders the claimed process obvious. However, the rejection is silent, and the Applicant has not found any teaching in Hollenbeck, about measuring temperature and finding a filament position that would require less power than another position. As not all claim limitations have been taught, applicant respectfully asserts that the rejection of Claim 63 stands without merit and requests withdrawal thereof.

The claims depending from the independent claims are patentable at least by virtue of their dependence, without need to resort to the additional patentable limitations contained therein.

A further and favorable action and allowance of all claims is solicited.

Respectfully submitted,



D. Joseph English
Reg. No. 42,514

DUANE MORRIS LLP
1667 K Street, N.W., Suite 700
Washington, D.C. 20006
Telephone: (202) 776-7800
Telecopier: (202) 776-7801

Dated: February 28, 2006

DM2\659780.1